

BUILDING PROPOSAL

You are a civil engineer who has been asked to design and build a new building. The client wants the building to be modeled after the Louvre in Paris, but three times larger. The exterior of the building will be covered in galvanized steel.

After some research, you find the following facts:

1. The Louvre is a square pyramid: Each side of the base is 35 meters, and the height is 20.6 meters.
2. Galvanized steel costs \$15 per square meter.
3. The surface area – to – volume ratio indicates how quickly the building loses heat. The smaller the ratio, the more energy efficient the building is.

Your professional opinion is that the size of the building will be too large and the clients will be discouraged by the cost of such a large building, so you're going to show them plans for creating the building the same size, twice the size, and three times the size, so they have options to compare. Create a proposal for the new building, showing each option to the client. Each option should detail the following:

- a) Dimensions of the building
- b) Surface area
- c) Volume
- d) Total cost of exterior materials
- e) Energy efficiency ratio

At the bottom of the page, write two to five sentences with your recommendation for the size and material of the building, along with an explanation for why you chose that option.

Original Size	Dimensions Sketch
<p>Surface Area:</p> <p>Volume:</p> <p>Materials cost:</p> <p>Energy Efficiency:</p>	
Double Size	Dimensions Sketch
<p>Surface Area:</p> <p>Volume:</p> <p>Materials cost:</p> <p>Energy Efficiency:</p>	
Triple Size	Dimensions Sketch
<p>Surface Area:</p> <p>Volume:</p> <p>Materials cost:</p> <p>Energy Efficiency:</p>	

Recommendations: